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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,758	12/04/2001	Donald J. Monroe	10541-636	8286
29074	7590	08/31/2005	EXAMINER	
VISTEON C/O BRINKS HOFER GILSON & LIONE PO BOX 10395 CHICAGO, IL 60610			SY, MARIANO ONG	
			ART UNIT	PAPER NUMBER
			3683	

DATE MAILED: 08/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/004,758	<b>Applicant(s)</b> MONROE ET AL.	
	<b>Examiner</b> Mariano Sy	<b>Art Unit</b> 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-17,19-21 and 34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9,17,19-21 and 34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 18, 2005 has been entered.

2. The disclosure is objected to because of the following informalities:  
Page 9, par. [0027], line 8 "secondary edge 254" should be --secondary edge 252--.  
Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-7, 9-17, 19-21, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston (US 4,748,862) in view of Cole et al. (US 6,446,778).

Re-claims 1, 5 and 15 Johnston disclosed, as shown in fig. 1-2, a starter pinion 14, 18 moveable along an output shaft 10 of a starter assembly, the pinion comprising: an inner surface 24 having a bore formed therethrough, the inner surface (since bushing 18 is integral with pinion 14, the inner surface is readable as the inner surface 24 of pinion bushing 18) being disposed about and configured to contact the output shaft and terminating at an end face of the pinion, wherein the inner surface and a plane defined by the end face are generally perpendicular with each other; and a groove 20 for receiving and moving particles along the output shaft as the pinion moves along the output shaft, the groove being formed along a length of the inner surface and extending to the end face, the groove defining a primary cleaning edge formed adjacent the groove along the length of the inner surface.

However Johnston failed to disclose wherein the inner surface and the end face intersect to define a secondary edge.

Cole '778 teaches, as shown in fig. 3, a housing 48 with a bushing 44 having a plurality of debris channels 84 and an inner surface and end face intersect to define a secondary edge to move debris from shaft.

It would have been obvious to one of ordinary skill in the art to modify the pinion of Johnston with the inner surface and end face intersect to define a secondary edge, in view of the teaching of Cole, in order to maximize the cleaning of debris or foreign particles.

Re-claim 2 Johnston further disclosed that the pinion 14, 18 is a one-piece pinion (since in col .1, lines 67-68, pinion 14 and bushing 18 are press-fit together and move together, thus the two parts are integrally formed a one-piece structure).

Re-claim 3, see col. 1, line 58 – col. 2, line 1.

Re-claim 4, see column 1, lines 58 et al.

Re-claim 6, see col. 3, lines 6-13.

Re-claim 7, see fig. 2.

Re-claim 9, see the plurality of grooves 20 on the inner surface 24 shown in fig. 2 and note how each groove has its own separate primary edge as described in Claim 1 above.

Re-claim 10, see grooves in fig. 2, each formed along the length of the inner surface 24 and adjacent each respective primary edge.

Re-claim 11, see fig. 2.

Re-claim 12, see fig. 2.

Re-claim 13, note how at least bushing 18, which is integral with pinion 14, is made of metal as disclosed in col. 2, lines 6-7.

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Re-claim 14, see the barrel portion shown in fig. 1 and a gear portion (see fig. 1 and the portion of pinion 14, 18 labeled element numeral 14, wherein the end face and the inner surface 24 are adjacent the gear portion (see fig. 1-2).

Re-claim 16, see claim 5 above.

Re-claim 17, see groove 20 of fig. 2 and col. 3, lines 6-13.

Re-claim 19, see fig. 2 and grooves 20.

Re-claim 20, see claim 10 above.

Re-claim 21, see fig. 2.

Re-claim 34, see claim 2 above.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jacoby (US 2,831,737)

Heinold (US 4,456,266)

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mariano Sy whose telephone number is 571-272-7126. The examiner can normally be reached on Mon.-Fri. from 8:30 A.M. to 2:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor, can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 M. Sy

August 19, 2005

THOMAS WILLIAMS  
PATENT EXAMINER

Thomas Williams  
AU 3683  
8-29-05